

Descriptions of New Genera and Species of the Orthopterous Tribe Tettigidae.

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During the preparation of an article on "Tettigidae" for Wytsman's "Genera Insectorum," I have taken the occasion to review a large number of specimens of this group, with the result that I have met with a number of new genera and species. I have deemed it expedient to describe some of these here, in advance of the publication of the article above referred to. The most interesting species in the series is *Amphibotettix longipes*. It is to be regretted that no actual observations of their habits have been made, yet there is hardly any doubt, that this species is fond of living in the water, similar to *Scelhymena*.* This fact is evidenced by the extraordinary dilatation of the lateral margins of both the tibiae, and the metatarsi of the hind legs.

SECTION SCELHYMENÆ.

AMPHIBOTETTIX gen. nov.

Characters: Allied to *Scelhymena*. Body granose, indistinctly nodulose, barely fossulate. Vertex short, small, strongly narrower than one of the eyes, middle feebly carinate, the frontal carinae moderately distinct, narrowly convergent forward, formed anteriorly into a nearly hemispherical margin, not advanced so far as the eyes. Face oblique; frontal costa narrowly sulcate, lightly produced. Eyes globose; ocelli conspicuous and placed between and little before the lower third of the eyes. Antennae very slender, reaching the humeral angles, filiform, consisting of fourteen distinct articles, inserted barely between or just before the ventro-anterior margin of the eyes. Pronotum anteriorly truncate, or little ascendant, produced in a short cylindrical spine, directed upward and forward above the occiput, posteriorly lengthily extended backward beyond the femoral apices and acute, dorsum distinctly flattened, humeral angles strongly obtuse, often with indistinct humero-apical carinae; median carina of pronotum lightly

*The correct spelling of *Scelimenæ* Serville, is undoubtedly *Scelhymena*, as given by Bolivar, *vide* Ann. Soc. Ent., France, LXX, p. 581, 1901.

compressed, often undulate, subobsolete on the process; posterior angles of the lateral lobes turned downward, the inferior margin before the angle armed with a long cylindrical, acute spine. Elytra oblong, acuminate toward the apices; wings perfectly explicate. Femora entire, distinctly lengthily attenuate; the anterior nearly as long as the middle femora; posterior tibiæ shortened to about three-fourths the length of the corresponding femora, lateral margins strongly dilated toward the apices, first article of the posterior tarsi much longer than the third, the lateral margins widely expanded, the pulvilli very small and subobtuse.

This genus differs from *Scelthymena* in the narrower vertex, the raised position of the ocelli and insertion of the antennæ, in the lengthily attenuate legs, and in the turned down posterior angles of the lateral lobes. The spiniform antero-dorsal margin of pronotum is probably only of specific importance. I would therefore include in this genus two species namely: *Amphibotettix longipes*, the type described below, and *Aphibotettix abbotti* Rehn.*

***Amphibotettix longipes* sp. nov.**—Body slender, coarsely granulose, fuscous, posterior femoral margins and ventral surface of body light yellow. Head not at all exserted; vertex narrowed forward, considerably narrower than one of the eyes; eyes globose. Pronotum anteriorly produced in a short, rather blunt spine, nearly vertically elevated, the antero dorsal margin transversely somewhat tentate, posteriorly the apical process profoundly prolonged backward, slightly more than twice the length of the posterior femora, the apex acute; dorsum between the anterior margin and the shoulders on either side constricto-sulcate, behind the shoulders shallowly bifossulate, with lightly tumose elevations posteriorly; median carina very little compresso-elevated, undulate, interrupted anteriorly and subobliterated backward on the apical process; humero-apical carinæ dividing off rather narrow indistinct scapular areas; spine of posterior inferior margin of lobes straight and lengthily cylindrical acute, almost transverse or leaning little forward. Elytra elongate, the apex acuminate, surface coarsely granulose, below and toward the apex finely reticulose; wings extended backward nearly to the pronotal apex. Anterior and middle femora extraordinarily slender, the anterior strongly longer than the head; posterior femora very slender, knee very narrow, the antegenicular denticle absent, the genicular spine lightly produced; the pulvilli of posterior tarsi equal in length, the third pulvillus

*Proceedings Acad. Nat. Sciences, Philadelphia, 1904, p. 660.

flattened below. Total length ♀, 26 mm.; pronotum, 25 mm.; posterior femora, 9 mm.; anterior femora, 5 mm.; posterior tibiæ, 6.80 mm.; ♂, 20 mm.; pronotum, 19 mm.; posterior femora, 7 mm.

Eight females and six males from Brunei, Island of Borneo. In my collection.

SECTION METRODORÆ.

PLATYTETTIX gen. nov.

Characters: Body strongly rugoso-reticulose. Head lightly exserted; vertex considerably broader than one of the eyes, tridentate anteriorly, consisting of a denticle on each side, and a minute denticuliform produced median carina. Eyes very small, though slightly prominent; ocelli placed between the lower fourth of the eyes. Frontal costa rather widely sulcate, viewed in profile roundly produced between the antennæ, abruptly sinuate above and below. Antennæ inserted below and before the ventro-anterior part of the eyes. Pronotum anteriorly truncate, posteriorly hastate, the apex acute; median carina of pronotum strongly cristate anteriorly before the shoulders; humeral angles obsolete; posterior angles of the lateral lobes widely laminate outwards, triangularly sub-spiniform produced, obliquely truncate behind. Elytra and wings absent. Legs strongly compresso-carinate; anterior femora strongly carinate above, below acute lobate; middle femoral carinæ sinuate-lobate; posterior femora stout, the antegenicular and genicular spines strongly triangularly produced; first article of the posterior tarsi provided with sub-acute pulvilli.

Platysettix reticulatus sp. nov.—Body short and robust, viewed from above the inferior margins of lateral lobes of pronotum widely dilated backward and acute; grayish-ferrugineous, lightly marked on dorsum with fuscous and also the legs annulated with the same color. Vertex barely more than twice the breadth of one of the eyes. Pronotum with the dorsum strongly compresso elevated anteriorly before the shoulders; median carina gently arcuato-cristate forward to near the front border, and backward abruptly descending between the shoulders; surface on either side of crest and lateral lobes strongly rugose-scabrous; dorsum behind the crest somewhat flattened and profoundly reticulose-scabrous, presenting many little cratiform elevations; the median carina of pronotum here very thin and indistinct; anterior carinæ behind the front

margin abbreviated but distinct; lateral carinæ of the posterior process very thin, lightly compressed, and minutely serrate, the apex of pronotum produced, little upturned and extended backward to apex of posterior femora.

Total length of body 9 mm.; pronotum 8 mm.; posterior femora 5 mm.

One female from Marcapata, Peru, South America. In my collection.

TRIGONOFEMORA gen. nov.

Characters: Body coarsely granulose, rugose and sparingly tuberculose. Head slightly compresso-elevated; face subvertical; antennæ inserted below the ventro-anterior border of the eyes; ocelli placed between the lower third of eyes, barely visible in profile view; eyes small, higher than the dorsum and scarcely at all more elevated than the vertex; vertex anteriorly truncate, broader than one of the eyes, middle lightly carinate forward, on either side between the eyes foveate; occiput strongly sloping backward; frontal costa evenly divergent forward but the rami moderately separated. Pronotum distinctly flattened on the dorsum, truncate anteriorly, posteriorly subulate; median carina of pronotum behind the anterior border often compresso-elevated; humeral angles laterally prominent, carinate, and obtuse angulate; the posterior angles of the lateral lobes rather narrowly subrectangularly truncate, the inferior margins very little turned outward; elytral sinus above shallow, the inferior sinus deeply and angularly incised. Elytra oblong; wings perfectly explicate. Femora little compressed, elongate, carinæ of anterior femora triquetrous, the external pagina with the oblique rugæ strongly prominent, the carina of the outer face below very pronounced; femoral and genicular denticles very strongly triangularly produced. First and third articles of the posterior tarsi equal in length.

Trigonofemora fossulatus sp. nov.—Ferruginous above, legs very light green, often mottled below with black. Vertex much wider than one of the eyes, front border truncate and barely advanced so far as the eyes, the anterior carinæ outwardly on each side abruptly curved backward, between the eyes on each side foveate, occiput declivous posteriorly. Pronotum with the dorsum distinctly flattened, strongly widened between the shoulders; just behind the shoulders deeply bifossulate, posteriorly rugose-scabrous interspersed with tubercles; median carina of pronotum

close to the anterior margin obsolete, between the sulcations compresso-cristate, but the small crest not elevated above the eyes; on either side of the base of crest presenting a small tumose eminence; posteriorly the median carina becomes interrupted, being undulate-suberrulate; anterior carinae behind the front margin abbreviated but distinct. Elytra oblong subacuminate toward the apex; wings perfectly explicate, extended backward little beyond the apex of pronotal process. Posterior femora above strongly carinate, provided with a small secondary denticle just above the strongly prominent femoral lobe; posterior tibiae with both margins sparingly armed with spines; the first articles of the posterior tarsus having the pulvilli of gradually increasing length, from the first to the third.

Total length, 13 mm.; pronotum, 11.5 mm.; posterior femora, 5.5 mm.

One female from Callanga, Peru, S. Am. In my collection.

STENODORSUS gen. nov.

Characters: Body granulose rugulose. Head not exserted or elevated; face little oblique; antennae slender filiform, inserted between the lower part of the eyes; ocelli placed between the middle of the eyes; eyes moderately small, little elevated but not prominent, viewed from above subreniform, in profile conoidal. Vertex anteriorly truncate, subequal in breadth to one of the eyes, middle indistinctly carinate anteriorly; frontal costa narrowly sulcate, the rami almost imperceptibly widening forward to the median ocellus; maxillary palpi slender, the apical article slightly depresso-ampliate. Pronotum anteriorly truncate, posteriorly acute, strongly extended backward beyond the apex of posterior femora; dorsum very narrow between the shoulders, somewhat flattened; humeral angles very widely obtuse, the scapular area clearly defined by the presence of humero-apical carinae; posterior angles of lateral lobes subobtusely rounded. Elytra oblong; wings perfectly explicate. Superior or elytral sinus much shallower than the inferior sinus. Femoral margins subentire; posterior femora slender; genicular and antegenicular denticles small, acute, margins of posterior tarsi minutely serrate and sparingly armed with small spines. First and third articles of posterior tarsi equal in length.

This genus resembles *Allotettix*, but differs from that genus in the narrower body, the insertion of the antennae between the ventral part of the eyes, and the situation of the superior ocelli between the middle of the eyes.

Stenodorsus extenuatus sp. nov.—Ferruginous, sometimes indistinctly infuscate. Vertex subequal in breadth to one of the eyes, little narrowed forward, truncate anteriorly, the frontal carina on each side little elevato-curved; behind the frontal carinae provided with little oblong fossae, occupying the space on each side of the median carina between the anterior half of the eyes. Pronotum with the dorsum flattened or barely convex, very narrow prolongate, provided forward on each side with a large longitudinal ruga; median carina of pronotum percurrent, moderately conspicuous, little elevated; on each side of dorsum forward between the carinae longitudinally bicanaliculate, posteriorly the surface often rugoso-punctulate; forward between the front of shoulders rarely provided with very indistinct abbreviated carina on each side; humero-apical carinae present, dividing off moderately wide scapular areas overlying the shoulders; apical process of pronotum very lengthily extended backward, little longer than the wings, or rarely equal in the male. Elytra oblong, acuminate toward the apex; wings perfectly explicate. Posterior tibiae narrow, very lightly expanded toward the apices, the apical half little curved outward, the outer margin of the distal third part armed with minute denticles but the inner fifth part unarmed; the third pulvilli of the posterior tarsi equal in length to the first and second articles combined, and flat below. Total length of body ♀, 16 mm.; pronotum, 15 mm.; posterior femora, 6.5 mm. ♂, 14-14.25 mm.; pronotum, 12.5-13.5 mm.; posterior femora, 5.25-5.5 mm.

Numerous specimens in my collection from Marcapata, Peru, South America.

North Carolina Records of Odonata in 1904 and 1905 With Corrections of Some Previous Records.

BY C. S. BRIMLEY.

In the following list all noteworthy North Carolina records of Odonata for the years 1904 and 1905, except the Lake Ellis data,* are included. The specimens were taken by myself unless otherwise stated. Species marked with a star *, have not been previously recorded from the state.

Gomphus sorditus Hagen. Hobton, Sampson Co., one female April 27, 1904. F. Sherman.

Gomphaeschna furcillata Say. Raleigh, April 19, 27, 1904; April 3, 1905.

Basiaeschna janata Say. Raleigh, April 14, 1904, a male and female.

* *Aeschna constricta* Say. Raleigh Nov. 7, 1904, one male.

Macromia taeniolata Ramb. Raleigh, Aug. 9, 1904, one male.

* *Neurocordulia obsoleta* Say. Wilmington, April 5, 1905, G. M. Bentley.

Tetragoneuria cynosura Say. Wilmington, April 5, 1905, one; Wallace, Duplin Co., April 5, 1905, one; G. M. Bentley.

* See p. 81.